ARIZONA GAME AND FISH DEPARTMENT HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract Element Code: PDSPN03010

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Cardiospermum corundum* L.

COMMON NAME: Balloon vine, balloonvine, faux persil, faux-persil

SYNONYMS: *Cardiospermum corindum* var. *villosum* (P. Mill.) Radlk., *C. keyense* Small,

C. palmeri

FAMILY: Sapindaceae

AUTHOR, PLACE OF PUBLICATION: Lineaus, Species Plantarum, Editio Secunda 1: 526.

1762.

TYPE LOCALITY: Brazil.

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS: Cardiospermum corindum is 1 of 5 species in the genus Cardiospermum, and the only species that occurs in Arizona. Much of the material from Mexico that belongs in C. corindum has been referred to C. halicacabum (Shreve and Wiggins, 1964). According to Salywon (1999), it was "erroneously reported in the supplement to Kearney and Peebles as C. halicacabum L."

DESCRIPTION: A suffruticose vine, often climbing over other vegetation with slender, glabrous to densely tomentulose branches and 2 strongly coiled tendrils just below flower clusters near tip of each peduncle; stems villous, 6 ribbed. Leaves extremely variable as to shape, size, and pubescence. They are once to twice pinnately compound, 3-11 cm (1.2-4.3 in) long and 4-11(-15) cm (1.6-4.3(-6) in) wide, subglabrous-villous, crenate to serrate, the apices acute, acuminate to mucronate (rarely obtuse), the bases truncate. Leaflets are crenate to lobed, 3-9; rachis usually narrowly winged; petiole 1-3 cm. Inflorescences are racemose-paniculate, 1-3(-5) cm long, generally with 3-5 main branches, bracteate, the axis 2-10 cm long or more. The flowers are 6-10 mm wide and 4-6 mm long, with 4 glabrous to pubescent sepals, the outer pair ovate and 1-2.5 mm long, the inner pair is 3-5 mm long, each bearing 2 callous glands at the base. Four white or pinkish petals are 4-6 mm long; the scales are 2.5-3 mm long, ovate, petaloid or club-shaped and slightly flattened, generally villous on the inner surface. The filaments are 3-4 mm long, with long pubescence, basally connate, slightly flattened; anthers are 0.4-0.8 m long. The ovary is villous, and the style is 0.7-1 mm long. The papery fruit is 2-3 cm long (2.5-4.5 cm in Salywon 1999) and 3.5 cm (1.4 in) wide, glabrate and strongly veined, reddish-brown, the base attenuate. Seeds are globose, 4-5 mm in diameter; hilum is 3 mm long, suborbicular but shallowly emarginated, heart shaped, tan. (Shreve and Wiggins, 1964; Salywon, 1999).

Per Martin et al. (1998), "Perennial, as a small shrub or more commonly as a scandent herb on shrubs and rocks. The bladdery pods hang conspicuously on the plant all year, and when mature, turn from the original pale green color to a russet brown. The flower corolla is pink in the bud, white when open."

AIDS TO IDENTIFICATION:

ILLUSTRATIONS: Line drawing (Wiggins, 1980: 804).

Line drawing (S. Alversack 1998, in Salywon 1999: p. 80, fig. 1.)

Color photo (Roger L. Hammer, in

http://www.regionalconservation.org/beta/nfyn/plantdetail.asp?tx=Cardcori)

TOTAL RANGE: Southern British Columbia, to Sonora and Chihuahua, Mexico, West Indies, and South America. In the United States, found in Arizona, Florida and Texas. In Mexico, from Baja California and Sonora.

RANGE WITHIN ARIZONA: Coyote Mountains, Pima County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial scrambling or climbing vines.

PHENOLOGY: Flowers all year with suitable conditions.

BIOLOGY: Fast growth rate, readily growing from seed; grows in full sun. Moderate tolerance to drought but susceptible to frost; low tolerance to salt. This species is a larval host for gray hairstreak (*Strymon melinus*) butterflies.

HABITAT: Along arroyos, on hillsides, and among shrubs on arid plains.

ELEVATION: 3,300 - 3,800 feet (1007-1159 m) in Arizona. In Mexico, collected from elevations of 400 – 2,800 feet (122-854 m), (SEINet, accessed 2004).

EXPOSURE: Full sun. Collected from steep 30% grade (Buegge 1998, ASU 234380).

SUBSTRATE: Rocky soils on canyon bottoms and hillsides in Arizona. Sandy soils to rocky slopes in Mexico. Moist, well-drained limestone soils in Florida.

PLANT COMMUNITY: Lower Sonoran Desert zone. Associated species in Arizona include: Acacia angustifolia (narrow-leaved acacia), A. greggii (catclaw acacia), Calliandra, Carnegia gigantea (saguaro), Cercidium microphyllum (=Parkinsonia microphylla, littleleaf palo verde), Coursetia (babybonnets), Cylindropuntia versicolor (staghorn cholla), Glandularia (mock

vervain), *Jatropha* (nettlespurge), *Prosopis velutina* (velvet mesquite), *Vauquelinia californica* (Arizona rosewood), and *Yucca*. (SEINet, herbarium collections accessed 2004).

POPULATION HISTORY AND TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None **STATE STATUS:** None

OTHER STATUS: None (USDI, BLM AZ 2005)

[Bureau of Land Management Sensitive

(USDI, BLM AZ 2000)]

MANAGEMENT FACTORS: Often used in cultivation on fences.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: Bureau of Land Management – Tucson Field Office.

SOURCES OF FURTHER INFORMATION

REFERENCES:

http://www.regionalconservation.org/beta/nfyn/plantdetail.asp?tx=Cardcori.
Integrated Taxonomic Information System (ITIS). Retrieved 9/1/2004 from ITIS, http://www.itis.usda.gov.

- Kearney, T.H., and R.H. Peebles, and collaborators. 1959. Arizona Flora. Second Edition with Supplement by J.T. Howell and E. McClintock. 1960. University of California Press. Berkeley, California. p. 1059.
- Martin, P.S. et al. 1998. Gentry's Rio Mayo Plants: The tropical deciduous forest & environs of northwest Mexico. The Southwest Center Series, The University of Arizona Press, Tucson, AZ. Pp. 434-435.
- Missouri Botanical Garden Nomenclatural Data Base. *Cardiospermum corindum* L. http://mobot.mobot.org/cgi-bin/search_vast. Accessed 20 Mar 2002.
- Missouri Botanical Garden Nomenclatural Data Base. *Cardiospermum corindum* L. http://mobot.mobot.org/cgi-bin/search_vast. Accessed 1 Sep 2004.
- Salywon, A. 1999. Sapindaceae Soapberry Family. Jour. Arizona-Nevada Acad. Sci. 32(1): 77-82.

SEINet. Collections Search Result. Accessed 9/1/2004 at http://seinet.asu.edu/collections/list.jsp.

Shreve, F., and I.L. Wiggins. 1964. Vegetation and Flora of the Sonoran Desert. Volume Two. Stanford University Press, Stanford, CA. 1740pp.

USDA, NRCS. 2004. The PLANTS Database, Version 3.5 (http://plants.usda.gov). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

USDI, Bureau of Land Management. 2000. BLM Sensitive Species List for Arizona. Information Memorandum No. AZ-2000-018.

USDI, Bureau of Land Management. 2005. BLM Sensitive Species List for Arizona.

Wiggins, I.L. 1980. Flora of Baja California. Stanford University Press, Stanford, CA. pp. 803-804.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

Genus name is Greek cardia = heart + sperma = seed, referring to the heart-shaped hilum on the seed.

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